

Disparities in Uninsured Hospital Care Rhode Island, 1996-2000

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Access to health care is one of the ten Leading Health Indicators (LHI) that were selected as part of the Healthy People 2010 process. Health Objective 1-1 related to this LHI is to "Increase the proportion of persons with health insurance,"¹ because health insurance coverage promotes access to care. A recent analysis of statewide survey data shows that 9.2% of working-age Rhode Islanders lacked health insurance coverage, down from 11.3% in 1996. However over that period, a significant disparity in coverage between men and women has arisen so that the percent uninsured among men has increased from near equality with women in 1997 to nearly double their rate in 2000.²

People without health insurance still need and receive care for illness and injury, including hospital inpatient care. This analysis looks at the patterns of utilization of hospital inpatient care by the uninsured with particular attention to differences between the genders.

Methods. Most information in the current report is obtained from Rhode Island Hospital Discharge Data (HDD), a primary source often used in this column.³ The hospitals submit these patient-level records on a quarterly basis to the Rhode Island Department of Health, Office of Health Statistics.

Much of the information contained in HDD derives from the billing process for hospitals. All records of discharges include an expected principal source of payment and variables for the various categories of charges. In the current analysis hospital discharges for patients whose payer was reported as "Self-pay" are considered uninsured discharges. (The discharge is categorized as "Self-pay" when the patient provides no health plan.) Only total charges are analyzed in this report. This analysis includes the eleven private acute-care general hospitals in Rhode Island. Newborns born in the hospital were excluded from the analysis.

Results. In the five-year period 1996-2000, "Self-pay" was reported as the payer in 20,910 discharges (3.7%), while an insurance plan was listed as payer for the remaining 546,280 (96.3%). During this period, the distribution of discharges from acute care hospitals in Rhode Island differed between the two groups for several characteristics. (Table 1)

5.1% of male discharges and only 2.8% of female discharges were self-pay. The age distribution of discharges in the two groups differed markedly. 3.2% of discharges under age 18 and only 0.4% of discharges over the age of 65 were self-pay. Persons 65+ made up nearly half (46.4%) of the insured group and only 4.7% of the uninsured. 89.1% of the uninsured were concentrated in the ages 18-64 years. The percent of discharges that were uninsured varied by racial and ethnic category. Hispanics and blacks were the

Table 1. Percentage self-pay among hospital discharges, by selected characteristics, Rhode Island 1996-2000.

Characteristic	Percent Uninsured
Sex	
Female	2.8
Male	5.1
Age group	
0-17 years	3.2
18-24 years	9.2
25-44 years	8.0
45-64 years	4.8
65 years and older	0.4
Race / ethnicity	
White	3.0
Black	8.4
Asian	6.3
American Indian	3.3
Hispanic	9.9
Other	5.6
Unknown	4.9
City of Residence	
Central Falls	4.6
Newport	6.8
Pawtucket	3.7
Providence	6.3
Woonsocket	3.9
All others	2.9
Admission type	
Emergency	4.5
Urgent	2.8
Elective	2.4
All discharges	3.7

discharges most likely to be uninsured, 9.9% and 8.4% respectively. (Table 1)

Five of the thirty-nine municipalities in Rhode Island are generally considered to be core urban communities. All of the five cities had a higher than average proportion of self-pay discharges among their residents who were discharged from hospitals in Rhode Island during 1996-2000. (Table 1)

Emergency admissions are the most common admission type for all discharges and were more likely to be self-pay (4.5%) than were urgent (2.8%) and elective admissions (2.4%) (Table 1).

Self-pay discharges were more likely to have principal diagnoses in the areas of injury and mental illness than were hospital patients overall.

(Figure 1) Discharges with a first-listed diagnosis of injury or poisoning were almost twice as likely (7.2%) to be self-pay as were discharges in general. 6.4% of those with a primary diagnosis of mental illness were self-pay. Discharges with a principal diagnosis of diseases of the circulatory system were only half as likely (1.8%) as all discharges to be self-pay. Hospitalizations for pregnancy

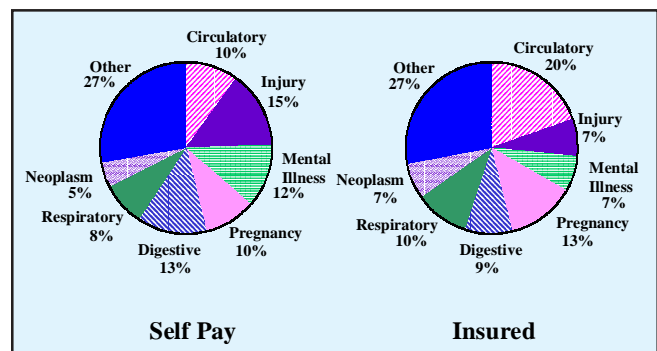


Figure 1. Distribution of common principal diagnosis categories by health insurance status, Rhode Island 1996-2000.

Health by Numbers

Table 2. Mean length of stay and mean total charges, by insurance status, Rhode Island 1996-2000.

Measure	Insurance Status	
	Self-Pay	Insured
Mean Length of Stay	4.16 days	5.33 days
Mean Total Charges	\$8,128	\$11,384

and its complications were also less likely than all discharges to be self-pay.

Hospital discharges classified as self-pay had a mean length of stay 22.0% shorter than insured patients did. Similarly, hospital patients classified as self-pay had 28.6% lower mean total charges than did other patients. Neither of these observations is controlled for age, sex, principal diagnosis and other differences. (Table 2)

Among those classified as self-pay, males predominated, making up the majority in all age groups under 65 years of age. In the age group 65 years and older, males made up 40% of the self-pay patients, similar to their proportion among the insured discharges in this age group. Hospital discharges of males ages 18-24 years were the most likely of any age-sex group to be self-pay (26.7%). (Figure 2) Only 5.0% of female discharges ages 18-24 years were self-pay.

Discussion. In the eleven Rhode Island acute-care general hospitals, 2.6% of total charges were billed to patients who were classified as self-pay. Despite a booming economy and low rates of unemployment in the late 1990's, lack of health insurance continued to be a problem for groups such as the homeless, the unemployed, and persons in low-income or temporary jobs that do not provide this benefit. Persons without health insurance are concentrated among young adult males in part because government programs preferentially cover the elderly, young mothers, and children.

In 2000, 9.2% of adult Rhode Islanders under 65 years of age were without health insurance.² Men ages 18-64 years were twice as likely as females in that age range to report being uninsured.² There are corresponding findings in the analysis of insurance status among hospital discharges. Self-pay discharges are more likely to be young adult men who are non-white and live in the core urban municipalities in the state. Self-pay discharges were disproportionately due to injury and mental illness. These patients experienced briefer, less costly admissions than did insured persons on average, due in part to the concentration of young adults among the uninsured.

There are implications of the increasing gender disparity found in insurance coverage in Rhode Island. Lack of health insurance coverage constitutes a barrier to access to care and this lack may be on the increase for young men. Emergency admissions, presumably representing more severe illnesses and injuries, are over-represented among self-pay hospitalizations. The uninsured presumably have poor access to primary care and to preventive services, so that many of the self-pay emergency hospitalizations may have been preventable, and their costs avoidable, if medical conditions had been addressed at an earlier stage.

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References

1. US Department of Health and Human Services. *Healthy People 2010: 2nd Ed. Understanding and Improving Health and Objectives for Improving Health.* (2 vols.) Washington, DC: U.S. Government Printing Office, November 2000.
2. Ryan C, Hesser J, Buechner J. Achieving universal health care coverage in Rhode Island: Where are the challenges? *Med & Health/RI* 2002;85:104-5.
3. Donnelly E, Buechner J. Complications of anesthesia. *Med & Health/RI* 2001;84:341-43.

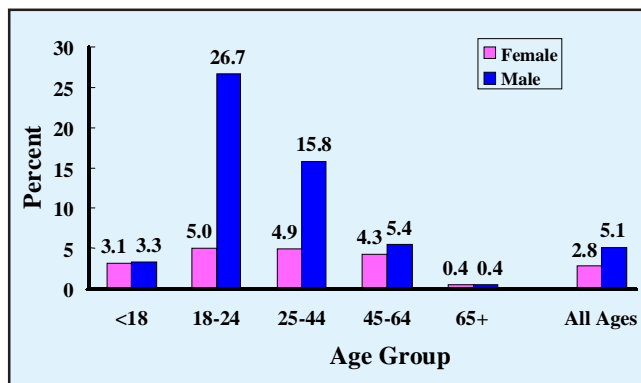


Figure 2. Percentage of hospital discharges that were self-pay by sex and age group, Rhode Island 1996-2000

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